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Reassessing Sustainability

An Introduction

by Luigi Pellizzoni

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There is no shortage of discussions on sustainable development. Indeed, sustainability is one of the most successful concepts – or catchwords – of the last decades. The bulk of social science literature on the topic is considerable. And yet books and articles come out relentlessly. This, I think, for at least three reasons. First, sustainability has been a contentious concept from the outset, and this feature has been gaining momentum over the years. Second, the terms of discussion are far from static; they have followed the evolution in understandings, sensitivities and policy priorities entailed by the major social and environmental changes of the last decades: think of globalization processes, the raise of new (bio-nano-info) technosciences and the increasing salience of climate change as a key environmental challenge. Third, there is a widespread feeling of unease with the politics of sustainability. There have been undeniable successes in the direction of eco-efficiency, a goal which has found a stable place in the agenda of international relations, national and corporate policies, individual behaviors. New technological and regulatory instruments for a sustainable handling of the biophysical world have appeared, from solar cells to carbon markets. Yet these efforts look geographically, socially, politically and technologically fragmented – not irrelevant in themselves, but often questionable in their eventual result and above all unable to set new directions for the developed and the developing world. The post-Rio summits, from Johannesburg to Copenhagen, have been major failures. Despite strengthening evidence of a dramatic climate shift economic growth has come back to absolute prominence in the political agenda. The commitment to

reducing energy consumption has been challenged by a renewed rush to oil and gas extraction, a revamp of nuclear power as a “clean” technology, and a persistent reading of accidents (even if, as with Fukushima, they concretize worst-case scenarios) as a matter of human error, predictive failure and possibility of technical fix, rather than as structural limits to the government of complex systems. The commodification of ever more elements of “nature” is increasingly criticized not only on principled but also on factual grounds, yet this does not deflect from basing technological advancement on this very premise. Unease or feeling of impasse, one has to add, is neither unanimous nor uniform. One of the contributors to this issue has for example recently made a case for the major transformation processes that, despite formidable opposition, are entailed by what he calls the “sustainability revolution”; a revolution that for its piecemeal, incremental, diffuse, “organic” character resembles the industrial revolution, yet seems to proceed more rapidly than the latter; a paradigm shift – however – the ability of which to save the planet remains to be seen [Burns 2012].

With these considerations in mind, stressing the problematic character of sustainability was the obvious choice for a call for papers on the subject. The response was encouraging for a journal venturing for the first time into this territory, with a good number of interesting submissions coming from different parts of the world. The usual double blind international review process led to the selection of Italian works; a result which I regard as an indicator of the good health of national sociology, despite the unfavorable conditions offered by declining funds and a never-ending process of reform of the academic system. Of course, the papers selected and the invited commentaries do not aim at offering a comprehensive outlook on sustainable development, yet they contribute to an assessment of the current state of affairs, from both a conceptual and an operational viewpoint. The question we asked was: is sustainability today a lively and viable set of ideas and practices? How are the latter evolving in a context that is deeply connected with, but also very different to, the one in which the notion was originally formulated? Five articles and three commentaries can provide a limited answer, yet such answer highlights a number of interesting theoretical and empirical points. Part of this interest, I think, lies in the intergenerational dialogue these contributions offer, the selected papers being authored by sociologists of the emergent generation and the commentaries being written by internationally prominent scholars.

Few readers, if any, will be unfamiliar with the notion of sustainability. In a general sense sustainability is an enduring concern for human societies, corresponding to the struggle to avoid socio-ecological collapse. The origins of the concept as we know it lie in the idea of sustainable yield forest management that emerged in the United States in the early decades of the 20th century [Dresner 2008]. Yet the academic, po-

litical and public opinion success of the notion is indissolubly linked to the United Nations World Commission on Environment and Development, chaired by Norwegian prime minister Gro Harlem Brundtland. The Brundtland Commission's report on the global environment and development [WCED 1987] represented, to some extent, the climax of an encouraging period begun after the first world summit on the environment (Stockholm 1972), the pessimistic picture of the MIT study on the "limits to growth" [Meadows et al. 1972], and the Yom Kippur war-related oil shock (1973). Developed and to some extent developing countries had been gradually recognizing the environment as a core policy field, stimulating reforms and innovations in the direction of eco-efficiency – or "ecological modernization", as many scholars and policy-makers from Northern Europe started to call it. Important research programs had been launched on topics such as climate and biodiversity. Successful international agreements had addressed problems like acid rain and the ozone layer. The turbulences of the late Sixties and the Seventies had given room, in the following years, to a more sedate social climate. The 1980s, of course, are also the decade in which neoliberal ideas begin to be translated into concrete programs and policies, under the Thatcher and Reagan administrations; a coincidence on which I'll come back later.

Sustainable development, in this context, was depicted as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [WCED 1987, 8]. The vagueness of this definition – starting with how needs are to be defined and anticipated, and by whom – has been the source of numberless discussions, while representing at the same time a reason of its enduring appeal. Quickly adopted by international agencies and governments and pivotal to the solemn commitments of the 1992 Rio de Janeiro World Summit, sustainability has worked as a storyline capable of gathering people from advanced and developing countries around a view of a future world society; a focal point, a "boundary object,"¹ provided with different and only partially overlapping meanings around which – and to a remarkable extent for this very reason – concerted efforts at different policy scales could be conceived and implemented. A notable feature – indeed a cornerstone – of the notion is the connection it establishes between economic, ecologic and social aspects of sustainability. Profit, planet and people are seen not only as reciprocally implicated but as mutually reinforcing. Environmental action, from this viewpoint, is more than mere "preservation"; it is "conservation," that is

¹ Originally proposed by Star and Griesemer [1989], the notion of "boundary object" refers to material objects as well as texts, ideas, programs and so on that can be interpreted differently by the actors involved in an issue while retaining a core set of shared meanings. A boundary object allows mutual understanding (or, if one wishes, productive misunderstanding), hence a connection between different cultural perspectives and interests.

sustainable use, and it requires “social justice,” that is fair distribution of costs and benefits.

One has immediately to add, however, that the three “pillars” of sustainability have hardly enjoyed equal attention. It is mostly the merging of ecologic and economic aspects that has been prominent in devising policies and reforms. The social pillar of sustainability has proved the weakest and most controversial [Boström 2012]. This for a number of reasons: from the lack of widely accepted basis and metric for the analysis of social issues (with the additional complication of the intertwinement of procedural and substantive aspects) to the very assumption that the social dimension of sustainability can be treated separately from, rather than being premised on, the other two; from the conflation of social sustainability or environmental justice with issues of governance and social policy as such to the latent conflict (most evident in eco-taxes and the health vs. occupation dilemma of many industrial struggles around the world) between environmental protection measures and social equity. Yet there is no denying that the social dimension of sustainability is important. Indeed, it is taking growing relevance if, for example, poorer communities are today recognized to be more vulnerable not only to the effects of climate change but also to the effects of adaptation and mitigation interventions – dams, windmills, restricted forest access and so on [Marino and Ribot 2012; see also the remarks of Lockie in his contribution to this issue]. Of course, one thing is the growing recognition, at the highest scientific-policy level (IPCC, World Bank etc.), that “the ensemble of problems associated with a changing climate cannot be understood, analyzed, or addressed without the vital contribution of the social sciences” [Agrawal et al. 2012, 329]; another is the actual research policy. At least from a European perspective, the impression is that on the one side the resources for social studies are often shrinking, and on the other that the social sciences (of course, economics excluded) are increasingly conceived as ancillary to “hard” science programs and corporate needs.

A good deal of the literature seeks to address the issue of sustainability from an analytical viewpoint, trying to work out its actual meaning. Graphic representations often play a significant role. The three-pillared definition of sustainability leads to a variety of tripartite figurations, analogous in that they locate sustainable development at the intersection of economy, society and the environment. As Steve Connelly remarks, the image of three intersecting circles “neatly capture[s] the difference between sustainable development and the previously separated concerns of policy and politics, suggesting not only the holistic scope of the concept but also its characteristic claim to integration” [Connelly 2007, 263-264]. A representation in form of triangle [e.g. Campbell 1996], in its turn, helps to stress the crossed conflicts – between social justice and economic development or environmental protection, and between

the latter and economic development – that a politics of sustainability should ostensibly overcome. Once drawn a nice figure, however, the problem remains of how to address the meaning of the concept. One solution is just to avoid elaborations, implicitly recognizing the boundary role of the concept. This is what Connelly calls the “quintessential governmental approach”; an approach, however, that in my view does not take the concept as theoretically unproblematic (if empirically tricky), as Connelly argues, but rather acknowledges its irredeemable theoretical questionableness and simultaneous opening to workable compromises – provided that one does not dig too deep. A different route is to advocate a selective interpretation, privileging one or the other of the binary connections of the pillars. From this viewpoint, as noticed above, the profit-planet or economy-ecology linkage wins hands down. Yet another approach is to focus on contrasting substantive understandings of the overall meaning of the concept. There are different, more or less elaborated, versions of this approach [see e.g. Dobson 1996; Myerson and Ridin 1996; Jacobs 1999]. Its basics, however, can be traced to the well-known opposition between “strong” and “weak” sustainability. In a “strong” sense, sustainability means that natural resources have to be used within their threshold of reproducibility or, in the case of irreproducible ones (e.g. oil), as parsimoniously as possible. In a “weak” sense, it is not deemed unreasonable to assume that technological artifacts can replace virtually all types of non-human-made resources, at least in the long run. At a first level the contrast regards whether or not “the natural stock of resources [...] needs to be given priority over the flows of income that depend upon it” [Redclift 2005, 214]. At a deeper level the contrast concerns the role assigned to human ingenuity in the form of technoscientific advancement. Critics of weak sustainability do not make just a principled case against the substitutability of natural with man-made resources. They point to the undesirable and unforeseen side effects of innovation, such as new or redistributed environmental risks or rebound effects (more efficient bulbs are left switched on for more time; ICTs entail more printed paper etc.). However, this contrast, which is reproduced in the controversy between “deep” and “shallow” ecology [Devall and Sessions 1985] or between “ecological” and “environmental” economics [Martinez-Alier 1990], does not fully capture an emergent trait in humans’ relationship with the biophysical sphere. The interpenetration of life and artifact, nature and culture, entailed by new bio-info-nano-technosciences, has intensified to the point of engendering what looks like a qualitative change. Agricultural biotechnologies aimed at working out more productive varieties of plants are hardly new. Yet, intuitively, the FlavrSavr™ tomato (the first commercialized transgenic plant, in 1994) intermingles culture and nature, technology and biology, at a different level compared with any other variety of tomatoes previously existing. This raises a serious question over the

precise terms of the contrast between strong and weak sustainability, or between nature preservation and conservation, given that these oppositions presume, if not an ontological, at least an operational distinguishability between what pertains to nature and what pertains to human artifacts; a possibility that seems to be rapidly fading away. I will come back later to this point.

When the attention focuses not so much on the different accounts of sustainability, as on the reasons why these differences are enduring and apparently irresolvable, such reasons are found in the very character of the concept. As Tom Burns notices, “‘sustainability’ and ‘sustainable development’ are political and normative ideas such as ‘democracy,’ ‘social justice,’ ‘equality,’ ‘liberty,’ etc. rather than precise scientific concepts; as such, they are contested and part of struggles over the direction and speed of social, economic, and political initiatives and developments” [Burns 2012, 1119-20; see also Burns’s contribution to this issue]. A similar point has been made years ago by Michael Jacobs. For him sustainability is not so much an ambiguous, as an intrinsically contested notion. Debates over sustainability are not semantic disputations but conflicting political arguments. There exist different legitimate yet incompatible conceptions that emerge and clash when an abstract definition is translated into concrete, operationalizable terms [Jacobs 1999]. Of course, in the spectrum of positions one finds also those who contest the concept in itself, before or beyond any interpretation. Herman Daly – a scholar renowned for his elaboration of a “steady state” model of economy – has remarked that sustainable development, as synonymous with sustainable growth, is an oxymoron [Daly and Townshend 1993]. A similar point is made by the proponents of the “de-growth” or “downshifting” transition. Serge Latouche [2006] regards sustainability as a deceitful notion, since it conveys the illusion that adjusting, or even speeding up, the economy may solve social and environmental problems. What we need, he maintains, is “a-growth” or “after-development”: an exit from the very ideology of development. Likewise, post-colonial scholarship remarks that in the last decades “environmental questions have become ever more central to development” [Escobar 2012, x], and that in this context “post-development,” understood as the construction of alternatives to development rather than an alternative development, becomes increasingly urgent.

The recognition that sustainable development is, first and foremost, a politically contested notion opens the way to a more historically informed analysis, the main task of which is to understand the connections between the emergence and evolution of sustainability and broader socio-political processes; the kind of ideological frameworks it fits and the political programs it supports. Sustainability, here, is understood as the opposite to a boundary-object: it is fault line rather than a common ground; an instrument of political struggle. Starting point of many considerations of this sort

is that “in place of radical new openings [...] the term is usually attached uncritically to existing practices and policies that might benefit from ‘re-branding,’” and that sustainability is associated with “the re-emergence of market economics and neo-liberal policies,” with the consequent attempt “to transform environmental choices into market preferences, following neo-liberal orthodoxy” [Redclift 2005, 218]. This type of consideration can be interpreted in two ways: either the discourse of sustainability has been, to a remarkable extent, appropriated by capitalist forces and translated into neoliberal parlance, thanks to powerful agents influencing key institutions (OECD, World Bank etc.), with consequent dramatic weakening of its import and scope; or sustainability is, since the beginning or by itself, if not properly a product of, at least a perspective that can be easily aligned with neoliberal ideology and policies. From the first viewpoint the underlying assumption of the Rio Summit of a shared interest of the North and the South in working out a common operational definition of sustainability looks suspiciously close to the “Washington Consensus” underlying neoliberal reforms around the world². From the second viewpoint sustainability tends to be, even unintentionally, a depoliticizing concept, its insistence on equilibrium, balance and stability (derived from ecological thinking) being intrinsically conservative and ill-suited to promoting social change [Davidson 2009; Boström 2012].

A sophisticated version of this view has been developed by Erik Swyngedouw. Building on arguments advanced, among the others, by Chantal Mouffe, Jacques Rancière and Slavoj Žižek, he argues that, if the essence of the “political” lies in the “metaphorical universalization of particular demands” [Swyngedouw 2010, 286], that is the attempt to legitimize a social order over its contingent and contestable character, then today we are in front of a major erosion of a properly political confrontation, under the assumption of the “inevitability of capitalism and a market economy as the basic organizational structure of the social and economic order, for which there is no alternative” [Swyngedouw 2010, 215]³. A crucial site of this “post-politics” is environmental politics, with special reference to the politics of sustainability. “Nature” or “the environment” constitute an elective terrain for the core

² As is well-known, the expression “Washington Consensus” refers to the list of reforms proposed by neoliberal economists and endorsed by the US and prominent international institutions between the 1980s and 1990s: fiscal discipline (no public budget deficit), tax cuts, financial liberalization, free-floating exchange rates, trade liberalization, the promotion of foreign investments, the reduction of public expenditure, privatization, the deregulation of labour and product markets, and the strengthening of property rights.

³ Nadia Urbinati [2010] remarks that political judgment, which corresponds to advocating a vision of the general interest (with a publicly justified yet inevitable disparity in the distribution of the costs and benefits of the chosen course of action), is increasingly replaced by a sort of judicial judgment, aimed at choosing what allegedly is in the interest of all.

post-political argument: that current major problems involve each and everybody, beyond differences and inequalities, and that therefore “ideological” (class, territorial etc.) conflicts must be overcome in the name of a consensual reflexivity grounded on the unquestionable premise of a given social order. This elective terrain is created not only by the alleged encompassing character of environmental issues, but above all by the apocalyptic framing of threats like global warming or energy exhaustion. The sustainability argument, in this context, has lost much of its critical capacity, its imaginative potential of alternative trajectories, conveying the view of a harmonious yet indeterminate future to be ensured through a managerial reworking of current society. Managerial solutions seem to be based on two contrasting approaches: limiting or redressing our intervention in nature and, simultaneously, developing “new natures” thanks to technoscientific advancement. For Swyngedouw [2007], the unifying trait of these approaches lies in the understanding of nature as a predictable and determined set of processes that tend towards a dynamic equilibrium; an equilibrium which can be disturbed by human actions but can also be rectified. Yet – he argues – it is precisely this understanding that is contradicted by increasing evidence of the unpredictable, open-ended, complex, chaotic, intrinsically plural character of nature, as something never attainable as such, always symbolically charged and inscribed in meanings that vary according to place, time, culture, interests and technical capacity of intervention. A proper politics of sustainability should therefore start from the assumption that we are never in front of nature and society as separate entities, but of socio-physical entanglements; which means that environmental transformation is not independent of class, gender, ethnic and other power struggles, and vice versa.

Swyngedouw’s argument resonates in a number of cases for a reconsideration of the nature-society link, the theoretical lineage of which is post-structuralist deconstruction: Marx-informed, as in his case, or else, as in the case of much work in the area of science and technology studies – Actor-network theory [Latour 2005], co-production approaches [Jasanoff 2004], governmentality studies [Rose 2007], and so on. All of them, implicitly or explicitly, assume that withdrawing from objectivist ontologies and realist epistemologies (which include the systems approach of ecological thinking) would correspond to “emancipating” nature and society, or rather their hybrid contingencies, from oppressive powers. That things do not necessarily go this way, however, is today recognized even by some champion of deconstruction [Latour 2004], and is testified most evidently by growing strategic use of uncertainty [Michaels 2006; Freudenburg et al. 2008]. Organized interests increasingly appeal to the latter to claim either that there is evidence of no problems (so green lights for new technologies and markets, as with genetically modified food), or that there is no evidence of problems (so no restrictive measures whatsoever, for example regarding

greenhouse gas emissions)⁴. Above all, as I have argued elsewhere [Pellizzoni 2011; Pellizzoni and Ylönen 2012], neoliberal environmental governance seems to be based on the vision of a fully plastic and pliable biophysical reality, where the ontological instability or oscillation of matter does not hamper but rather enhances the possibility of appropriation and commodification⁵. From this viewpoint the problem of the current politics of sustainability is not only, or not so much, that its appeal to individual and collective “responsibilization” or self-regulation, has long been recognized as a typical neoliberal way of governing [Burchell 1996; Dean 1999], but that interventions are increasingly shifting from maintaining and enhancing existing environmental resources to engineering new ones [Redclift 2005] – be it a matter of compensating biodiversity loss and population growth thanks to new and more productive genetically-modified organisms, or of addressing climate change by means of “geoengineering” technologies, like solar radiation management or carbon dioxide removal [Gurian-Sherman 2009; Royal Society 2009]. The promissory character of many of these innovations does not affect their importance, since in the neoliberal world hype, expectations, anticipations and imaginaries play a performative, governmental role of increasing relevance [Borup et al. 2006; Felt and Wynne 2007; Pollock and Williams 2010].

Of course, the more politically oriented the account, the more directional the reading of the state of affairs. The thicker the interpretive lenses, the stronger the empirical evidence one finds. It is advisable, therefore, to keep a balance between awareness of the political import of sustainability and sensitivity to the variability and openness of concrete processes. It is certainly possible to talk of the alignment of traditionally radical non-governmental organizations with regulatory initiatives and commercial partnerships consistent with a neoliberal rationality of government [Blühdorn and Welsh 2007]. Yet at a closer look carbon markets, for example, open up interesting spaces of contention and diversion, with groups such as Greenpeace regarding them as open-ended political frameworks amenable to re-design along social and

⁴ Precaution, that is asking for action whenever there is no evidence of no problems, appears in this context a mere variation in the political play of uncertainty, where radical ecologists find themselves talking the same language of the most radical wings of neoliberalism (the “preemptive war” doctrine, it is useful to recall, is nothing else than an application of the precautionary principle).

⁵ For example, by regarding a living entity as an artefact if its basic functional parameters can be controlled (thus reproduced), biotech patents establish a correspondence between information and matter, so that rights in property over information can be subsumed into rights in property over the organisms incorporating such information, and vice versa. Similarly, carbon trading rests on the establishment of a conversion rate – the “global warming potential” (GWP) – between CO₂ and other greenhouse gases. The GWP, then, is simultaneously an abstraction like money, since it works as an exchange rate, and something allegedly happening in the atmosphere, a physical thing or phenomenon. In these and other cases we have an ontological indeterminacy or oscillation between reality and virtuality, matter and symbol, which seems to work in the opposite sense to any “emancipation” from capitalist relations of production.

environmental lines [Blok 2011; Blok 2012]. Similarly, it is possible to regard labeling and certification systems as typical forms of market-based neoliberal governance. Yet, again at a closer look, the picture is more nuanced. For example, by analyzing the plantation certification policy of the Forest Stewardship Council (FSC), Klooster comes to the conclusion that “on a scale of black to white, the FSC is a bright and shiny grey” [Klooster 2010, 128]. The rigor of social and environmental standards is improving, yet regulating plantations does not alleviate but possibly worsen the problem of deforestation, which is mostly driven by the inability of natural forests to generate income. Or vice versa: there are limits to consumption-based strategies to leverage sustainable development, yet they deserve careful attention in their being open-ended experiments in “actually existing sustainability” [Krueger and Agyeman 2005].

In short, the link between theoretical reflection and empirical inquiry is of paramount importance if one is to assess the present state and the future perspectives of sustainability. It is here that the contributions to this issue find their place.

Two articles deal with one of the most prominent policy areas of sustainable development: biofuels. The alleged capacity of biofuels to square the circle of sustainability, offering a simultaneous reply to oil dependency, greenhouse gas emission and rural development, has been as much celebrated as it has been contested. Emanuela Bozzini compares the biofuel policies of the European Union and the United States. Both defined ambitious programs based on financial aid and standard setting. Both such programs have met growing criticisms regarding the economic and environmental implications of expanded biofuel production. Sustained debate on both sides of the Atlantic has led, however, to dissimilar results. The EU has reduced its original targets and has tightened its regulations; the US have confirmed and increased their initial goals. The author finds the reason of this discrepancy in the policy and institutional frameworks according to which technical issues have been assessed, with the US more focused on energy independence and the EU more concerned with emission reduction, and with a sensible difference in the range, form and impact of stakeholder consultation. In short, a different emphasis on aspects of long-term sustainability leads to different policy paths. It is not uncertainty per se that entails diverging orientations, but the way uncertainty is “performed” in the policy process.

Giovanni Carrosio addresses the same issue from a different perspective. His outlook is based on the distinction between two diverging ways of conceiving sustainability: a “boundless” and a “bounded” one. Biofuel policies have been mostly grounded on the idea of a growing global market. This raises a number of side effects that lead to questioning the actual benefits of biofuels. The usual reply follows again a market logic, being focused on certification schemes. Yet there is another, promis-

ing way to develop biofuels, which is based on the localization of their production and consumption. This means preserving local control over resources and integrating different policies at a local scale, as regards for example energy and food production, strengthening the link between environmental and social sustainability. Such an approach is clearly at odds with the globalizing and dematerializing drift of neoliberal policies: if biofuels are produced and traded locally the emissions saved are localized as well and cannot be traded in the global carbon markets. In short, there is more to biofuels than just neoliberal green governmentality.

That the scope of sustainability is broad enough to encompass different, and sometimes widely diverging, approaches is shown also by the contribution of Natalia Magnani. The author focuses on the relationship between ecological modernization and sustainable development as theoretical frameworks and policy discourses. Their frequent conflation is argued to be counterproductive from both an analytical and a policy viewpoint. Their distinctive features, as regards especially the way justice, public participation and risk management are addressed, are used as a tool for discussing research on the local effects of the Kyoto Protocol-derived “Clean Development Mechanism” in developing countries, and on the local acceptance of renewable energy facilities in industrialized countries. The resulting picture is in both cases of policies that, especially at the implementation level, are more aligned with the ecological modernization perspective than the sustainable development one. The conclusion is that a proper promotion of the latter entails, among the other things, addressing local injustices, the quality of participation, the violation of indigenous rights and subsistence practices, and surviving forms of colonialism.

The relatively neglected status of the social pillar of sustainability has been already remarked. In her article Roberta Cucca is especially concerned with the social implications of green management initiatives. She analyzes the urban policies promoted in Vancouver and Copenhagen under the brand of “sustainable city.” Big international events have been organized on the topic, and programs for waste and mobility management and for the enhancement of green areas have been designed and implemented. These initiatives have attracted significant economic and social resources: talent, tourists, investors. However, they have also entailed a major increase in housing costs, leading to a process of “ecogentrification.” Original dwellers have been replaced by more affluent categories, with marginal groups being displaced into segregated or deprived areas. This, however, is not a necessary outcome of “green” urban renewal processes. In Vienna the social housing policy – that in Vancouver, Copenhagen and many other cities is declining – has remained strong, allowing a combined attention to ecological and social aspects, such as car-free areas, energy-efficient buildings and social group integration.

Tourism is another field where the sustainability discourse, and its contested implementation, are prominent. The privileged link between economic and environmental aspects means frequent cases of “greenwash” and neglect of the social aspects. This seems especially problematic if one considers that tourism is first of all a cultural or symbolic experience. In their article Rita Salvatore and Mara Maretti review the literature on the topic and make a case for the social dimension of sustainability, elaborating on the issue of equity. To the usual aspects of the latter (inter- and intra-generational, inter-species, procedural, spatial equity) they add a cultural one, by which they mean dialogue – that is enhanced reflexivity – between travelling and hosting communities and internal to the latter, as regards the concrete way to enact sustainability. The authors argue that tourism becomes sustainable if it structures itself around the notion of hospitality. The latter brings to the forefront such aspects as encounter, proximity, exchange, which display not only an economic, but primarily a cultural, relational and symbolic value. Similarly to Carrosio, Salvatore and Maretti regard “localness” as a key concept. Sustainability policies need to be community-centered policies. However, sustainable tourism is an intrinsically dynamic phenomenon. It allows the protection and valorization of natural, social and cultural heritages, yet it also entails, through the encounter with the tourist gaze, a redefinition of the local identity. It is a “branding” process in which the hosted and the hosting community have a same share.

I defined above the further contributions to this issue as “commentaries.” Yet they are much more than this. Building on the arguments developed by the five articles, three prominent scholars have worked out wide-ranging considerations.

Tom Burns devotes a considerable space of his contribution to reflecting on the background and theoretical framework of sustainable development. Development has been addressed after the Second World War in terms of modernization theory. Criticisms against its oversimplifications and cultural biases raised, among the others, by dependency theory and World Systems Theory have also fuelled the debate. Some of the tenets of modernization theory have reappeared, in a more sophisticated form, in the framework of ecological modernization. The latter’s trust in the possibility of a technology-driven reorientation of capitalism has in its turn been subject to sustained critique, again by those approaches which are more attentive to factors of power, contradiction and conflict. In reflecting on these dynamics Burn stresses a core element of his view of sustainable development. We are in front of a notion “that emerged out of political and administrative processes, not scientific ones.” It is therefore a normative and not a theoretical concept; a policy paradigm and not a theoretical one. This is often a source of confusion, to which also the four articles that explicitly or implicitly take issue with ecological modernization – seen as the

dominant paradigm – are somewhat prone, though it is certainly possible and useful to critically assess a theory or specific policy approaches in normative terms, as all the papers do in their own way. This type of sociological research, thus, is for Burns to be encouraged and expanded.

Stewart Lockie reads sustainability with the lenses of Actor-Network Theory (ANT), regarding it as a “monster,” in the sense that the notion is more than a conceptual framework. It plays a performative role, mediating and transforming human relationships with nature in a recursive manner that is both within and beyond intentions and control. Sustainability is at the same time symbolic and material; it is a social construction that becomes an agent in its own right. Sustainability has opened a space for sociology within decision-making forums, yet it “refuses to accept Durkheim’s maxim that social facts must always be explained by other social facts.” The modernist and Cartesian targets of the usual criticism of ANT scholars have mostly disappeared from the debate over sustainability, where ideas about new socio-ecological assemblages are largely accepted. The problem is rather translating ideas into practice. Here uncertainty, disagreement, inertia and resistance play a major role. Different rationalities (eco-efficiency, ecological, bioregional, eco-social and possibly others) are confronted, in their attempt to assemble new social ecologies, with different yet interrelated sets of demands (learning capacity, participatory deliberation, retrospective and prospective accountability). Eco-efficiency approaches are widely applied and equally widely criticized for their omissions, as the five articles also do. They disregard people, ecologies and values that are not captured by commodity circuits. However, they need not be totally dismissed. Standards, for example, provide reference points for evaluating activities and forums for establishing and revising those reference points. The sociological contribution in this respect is to intensify and extend not only retrospective but also prospective critique, through comparative analysis and support of social learning and deliberation.

Raymond Murphy defines sustainability, rather than a monster, a truly wicked problem. The concept is complex and value-laden, entailing choices on what in social life is to be supported, to the benefit of whom and by what means. Ecological modernization, environmental justice, resilience and adaptation theory, neo-Marxist approaches, consumerism and structural human ecology have their own strengths and weaknesses. Yet diversity and disagreement among theoretical approaches leads to forgetting that the default option is still traditional economic modernization. Similarly, while agreeing with much of their arguments, Murphy finds in the five articles significant omissions. They all criticize current sustainability practices and emphasize localism and participation as the key to sustainability, yet in so doing they do not pay due attention to the scale of problems and downplay the actual sources of unsustain-

ability. The green energy transition is dwarfed by growing recourse to fossil fuels. Tourism, even the most sustainable (a tiny part of the whole anyway) involves mobility, thus consumption and pollution. Local people are not necessarily supportive of sustainable practices, if for example they affect property values. Urban gentrification is not just a consequence of sustainability programs. More in general, growing attention to social aspects, that is to intra-generational justice, should not come at the expense of ecological ones, that is inter-generational justice. All this considered, Murphy advocates a comprehensive approach, with different perspectives playing a complementary role in addressing the multidimensional temporal and spatial scale of the sustainability issue. “Sustainability efforts can be made simultaneously at different levels and in different ways: local and global, participatory and organizational, market-based and regulatory-based.”

As I remarked in the beginning, sustainability raises an impressive number of scientific, political and policy problems. Even a wide range of reflections like those hosted by this issue of *Sociologica* can do little more than scratch the surface of the issue. However, at least one answer to our initial questions seems available: sustainability, or sustainable development, is anything but dead, as both an ideal and a practice. In spite – or perhaps because – of criticisms about its being at best cheap talk and at worst an instrument of further exploitation of natures and peoples, the notion is still provided with a normative, orienting power. In operational terms, despite limits and drawbacks, many experiences around the world testify its fruitfulness. In analytical terms, its capacity to stimulate research is by any evidence hardly exhausted. For a sociology increasingly engaged with planetary challenges this seems good news.

References

- Agrawal, A., Lemos, M. C., Orlove, B., and Ribot, J.
2012 “Cool Heads for a Hot World – Social Sciences Under a Changing Sky.” *Global Environmental Change* 22: 329-331.
- Blok, A.
2011 “Clash of the Eco-Sciences: Carbon Marketization, Environmental NGOs and Performativity as Politics.” *Economy and Society* 40: 451-476.
2012 “Configuring Homo Carbonomicus: Carbon Markets, Calculative Techniques, and the Green Neoliberal.” Pp. 187-208 in *Neoliberalism and Technoscience: Critical Assessments*, edited by L. Pellizzoni and M. Ylönen. Farnham: Ashgate.
- Blühdorn, I., and Welsh, I.
2007 “Eco-Politics Beyond the Paradigm of Sustainability: A Conceptual Framework and Research Agenda.” *Environmental Politics* 16: 185-205.

- Borup, M., Brown, N., Konrad, K., and Van Lente, H.
2006 "The Sociology of Expectations in Science and Technology." *Technology Analysis and Strategic Management* 18: 285-298.
- Boström, M.
2012 "A Missing Pillar? Challenges in Theorizing and Practicing Social Sustainability: Introduction to the Special Issue." *Sustainability: Science, Practice & Policy* 8: 3-14.
- Burchell, G.
1996 "Liberal Government and Techniques of the Self." Pp.19-36 in *Foucault and Political Reason*, edited by A. Barry, T. Osborne and N. Rose. London: UCL Press.
- Burns, T.
2012 "The Sustainability Revolution: A Societal Paradigm Shift". *Sustainability* 4: 1118-1134.
- Campbell, S.
1996 "Green Cities, Growing Cities, Just Cities? Urban Planning and the Contradictions of Sustainable Development." *Journal of the American Planning Association* 62: 296-312.
- Connelly, S.
2007 "Mapping Sustainable Development as a Contested Concept." *Local Environment* 12: 259-278.
- Daly, H., and Townshend, K.
1993 *Valuing the Earth: Economics, Ecology, Ethics*. Cambridge, MA: MIT Press.
- Davidson, D.
2009 "Social Sustainability: A Potential for Politics?" *Local Environment* 14: 607-619.
- Dean, M.
1999 *Governmentality*. London: Sage.
- Devall, B., and Sessions, G.
1985 *Deep Ecology. Living as if Nature Mattered*. Salt Lake City, UT: Peregrine Smith.
- Dobson, A.
1996 "Environmental Sustainabilities: An Analysis and a Typology." *Environmental Politics* 5: 401-428.
- Dresner, S.
2008 *The Principles of Sustainability*. London: Earthscan.
- Escobar, A.
2012 "Preface to the 2012 Edition". Pp. vii-xliv in *Encountering Development. The Making and Unmaking of the Third World*. Princeton, NJ: Princeton University Press (paperback reissue, first printing 1995).
- Felt, U., and Wynne, B. (eds.)
2007 *Taking European Knowledge Society Seriously*. Report for the European Commission. Luxembourg: Office for Official Publications of the European Communities.
- Freudenburg, W., Gramling, R., and Davidson, D.
2008 "Scientific Certainty Argumentation Methods (SCAMs): Science and the Politics of Doubt." *Sociological Inquiry* 78: 2-38.

Gurian-Sherman, D.

2009 *Failure to Yield. Evaluating the Performance of Genetically Engineered Crops*. Cambridge, MA: Union of Concerned Scientists Publications.

Jacobs, M.

1999 "Sustainable Development as a Contested Concept". Pp. 21-45 in *Fairness and Futurity*, edited by A. Dobson. Oxford: Oxford University Press.

Jasanoff, S. (ed.)

2004 *States of Knowledge: The Co-Production of Science and Social Order*. Abingdon: Routledge.

Klooster, D.

2010 "Standardizing Sustainable Development? The Forest Stewardship Council's Plantation Policy Review Process as Neoliberal Environmental Governance." *Geoforum* 41: 117-129.

Krueger, R., and Agyeman, J.

2005 "Sustainability Schizophrenia or Actually Existing Sustainability? Toward a Broader Understanding of the Politics and Promise of Local Sustainability in the US." *Geoforum* 36: 410-417.

Latouche, S.

2006 *Le Pari de la Décroissance*. Paris: Fayard.

Latour, B.

2004 "Why has Critique Run Out of Steam? From Matters of Fact to Matters of Concern." *Critical Inquiry* 30: 225-248.

2005 *Reassembling the Social. An Introduction to Actor-Network Theory*. Oxford: Oxford University Press.

Martinez-Alier, J.

1990 *Ecological Economics: Energy, Environment and Society*. Oxford: Blackwell.

Marino, E., and Ribot, J.

2012 "Special Issue Introduction: Adding Insult to Injury: Climate Change and the Inequities of Climate Intervention." *Global Environmental Change* 22: 323-328.

Meadows, D.H., Meadows, D.L., Randers, J., and Behrens, W.

1972 *The Limits to Growth*. New York: New American Library.

Michaels, D.

2006 "Manufactured Uncertainty. Protecting Public Health in the Age of Contested Science and Product Defense". *Annals of the New York Academy of Sciences* 1076: 149-162.

Myerson, G. and Rydin, Y.

1996 *The Language of Environment: A New Rhetoric*. London: UCL Press.

Pellizzoni, L.

2011 "Governing Through Disorder: Neoliberal Environmental Governance and Social Theory." *Global Environmental Change* 21: 795-803.

Pellizzoni, L., and Ylönen, M.

2012 "Hegemonic Contingencies: Neoliberalized Technoscience and Neorationality". Pp. 47-74 in *Neoliberalism and Technoscience: Critical Assessments*, edited by L. Pellizzoni and M. Ylönen. Farnham: Ashgate.

Pollock, N., and Williams, R.

2010 "The Business of Expectations: How Promissory Organizations Shape Technology and Innovation." *Social Studies of Science* 40: 525-548.

Redclift, M.

2005 "Sustainable Development (1987-2005): An Oxymoron Comes of Age." *Sustainable Development* 13: 212-227.

Rose, N.

2007 *The Politics of Life Itself*. Princeton, NJ: Princeton University Press.

Royal Society

2009 *Geoengineering the Climate. Science, Governance and Uncertainty*. RS Policy Document 10/09. London: The Royal Society.

Star, S.L., and Griesemer, J.

1989 "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39." *Social Studies of Science* 19: 387-420.

Swyngedouw, E.

2007 "Impossible 'Sustainability' and the Post-Political Condition. Pp. 13-40 in *The Sustainable Development Paradox. Urban Political Economy in the United States and Europe*, edited by R. Krueger and D. Gibbs. New York: Guilford Press.

2010 "Apocalypse Forever? Post-political Populism and the Spectre of Climate Change." *Theory, Culture & Society* 27: 213-232.

Urbinati, N.

2010 "Unpolitical Democracy." *Political Theory* 38: 65-92.

WCED (World Commission on Environment and Development)

1987 *Our Common Future*. Oxford: Oxford University Press.

Reassessing Sustainability

An Introduction

Abstract: Debates over sustainable development highlight its inherently contentious character. Not only its three “pillars” (economic, ecologic and social) have enjoyed a varied scientific and policy success, the social dimension of sustainability remaining the weakest and most controversial, but there are different strategies as regards the way to give operational meaning to the concept. Some follow a pragmatic approach, where sustainability plays a boundary role thanks precisely to its ambiguities. Others choose a specific outlook, according to a preference for “stronger” or “weaker” interpretations of the role of technology. Still others elaborate on the political import of the notion, its use for political purposes and within social struggles. Hardly insignificant from this viewpoint is the connection between the emergence and spread of the sustainability discourse and the rise of neoliberalism. A reassessment of the issue in the light of ongoing social and environmental changes is mandatory. The articles included in this issues offer an updated discussion of major theoretical and empirical aspects, from biofuels to green urban management, from sustainable tourism to climate change policies, devoting particular attention to the strengths and weaknesses of current prevailing “reformist” approaches. Sustainability remains a wicked problem, the performative role of which in inducing social transformation calls for a renewed sociological inquiry.

Keywords: Sustainability, environmental governance, technoscience, neoliberalism.

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